

Title (en)

Electrically alterable multilevel nonvolatile memory with autonomous refresh

Title (de)

Elektrisch modifizierbarer nichtflüchtiger Mehrpegelspeicher mit autonomer Auffrischung

Title (fr)

Mémoire non volatile multiniveau modifiable électriquement avec rafraîchissement autonome

Publication

**EP 0791933 B1 19990609 (FR)**

Application

**EP 97460009 A 19970217**

Priority

FR 9602300 A 19960220

Abstract (en)

[origin: EP0791933A1] The Multi-Level Memory has a matrix (1) of non volatile memory cells (1) memorising two bits of information. The matrix is divided into sectors which are addressable (3,4) and programmable (6,7,8). Read and Write circuits (5) are associated with the matrix. A real time clock (14) updates a command circuit (2) which periodically refreshes (2A) the memory cells.

IPC 1-7

**G11C 11/56**

IPC 8 full level

**G11C 11/56** (2006.01)

CPC (source: EP US)

**G11C 11/56** (2013.01 - EP US); **G11C 11/5621** (2013.01 - EP US); **G11C 16/3418** (2013.01 - EP US); **G11C 16/3431** (2013.01 - EP US)

Cited by

US9978456B2; EP0987715A1; US6169691B1; US7224607B2; US6813183B2; WO9916079A1; WO0115172A3; US7397697B2; US7170781B2; US9653154B2; US9899077B2

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

**EP 0791933 A1 19970827**; **EP 0791933 B1 19990609**; DE 69700258 D1 19990715; DE 69700258 T2 19991104; FR 2745114 A1 19970822; FR 2745114 B1 19980417; US 5950224 A 19990907

DOCDB simple family (application)

**EP 97460009 A 19970217**; DE 69700258 T 19970217; FR 9602300 A 19960220; US 79794897 A 19970212